

AMENDMENTS TO THE CLAIMS

RECEIVED

JUN 0 3 2003

GROUP 1700

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A cooling roll for manufacturing a ribbon-shaped magnetic material by colliding a molten alloy to a circumferential surface of the cooling roll so as to cool and then solidify the alloy, the cooling roll comprising:

dimple correcting means defined by at least one ridge provided on the circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll,

wherein the at least one ridge is provided by forming grooves with an average width of $0.5-90~\mu m$ in the circumferential surface of the cooling roll, the width of the grooves preventing the molten alloy from entering the groove; and

wherein the ratio of the area of the grooves with respect to the area of the circumferential surface when they are projected on the same plane is in the range of 30 – 99.5%.

- 2. (Original) The cooling roll as claimed in claim 1, wherein the cooling roll includes a roll base and an outer surface layer provided on an outer peripheral portion of the roll base, and the outer surface layer has said dimple correcting means.
- 3. (Previously Amended) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a material having heat conductivity lower than the heat conductivity of the structural material of the roll base at room temperature.

- 4. (Original) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a ceramic.
- 5. (Previously Amended) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a material having a heat conductivity equal to or less than 80 Wm⁻¹K⁻¹ at room temperature.
- 6. (Previously Amended) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a material having a coefficient of thermal expansion in the range of $3.5 18 \, [x \, 10^{-6} \, K^{-1}]$ at room temperature.
- 7. (Original) The cooling roll as claimed in claim 2, wherein the average thickness of the outer surface layer of the cooling roll is 0.5 to $50\mu m$.
- 8. (Original) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is manufactured without experiencing a machining process.
 - 9. (Cancelled)
- 10. (Previously Amended) The cooling roll as claimed in claim 1, wherein the average width of the ridge is $0.5-95~\mu m$.

(S)

(Cancelled) 11. 12. (Cancelled) 13. (Previously Amended) The cooling roll as claimed in claim 1, wherein the average height of the ridge or the average depth of the groove is $0.5 - 20 \mu m$. 14. (Previously Amended) The cooling roll as claimed in claim 1, wherein the ridge or groove is formed spirally with respect to the rotation axis of the cooling roll. 15. (Previously Amended) The cooling roll as claimed in claim 1, wherein the at least one ridge or groove includes a plurality of ridges or grooves which are arranged in parallel with each other through an average pitch of $0.5 - 100 \mu m$. 16. (Previously Amended) The cooling roll as claimed in claim 1, wherein the ratio of the projected area of the ridge or groove with respect to the projected area of the circumferential surface is equal to or greater than 10%. 17. (Cancelled) 18. (Cancelled)

Serial No. 09/870,241

19.

(Cancelled)

- 20. (Cancelled)
- 21. (Cancelled)
- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Cancelled)
- 25. (Cancelled)
- 26. (Cancelled)
- 27. (Cancelled)
- 28. (Cancelled)
- 29. (Cancelled)

(g) /